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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* IFTIKHAR KHAN and NAZIR KHAN

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Appeal 2010-003194  
Application 10/812,380  
Technology Center 3700

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Before WILLIAM F. PATE III, STEVEN D.A. McCARTHY and  
MICHAEL W. O'NEILL, *Administrative Patent Judges*.

McCARTHY, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

1       The Appellants appeal under 35 U.S.C. § 134 from the Examiner's  
2 decision finally rejecting claims 1-5, 7-10, 12-14, 17 and 18 under 35 U.S.C.  
3 § 103(a) as being unpatentable over Squitieri (US 6,102,884, issued Aug. 15,  
4 2000) and Parks (US 5,399,173, issued Mar. 21, 1995); finally rejecting  
5 claims 6, 11, 15, 16, 19 and 20 under § 103(a) as being unpatentable over  
6 Squitieri, Parks and Trerotola (US 5,591,226, issued Jan. 7, 1997); finally  
7 rejecting claim 10 under § 103(a) as being unpatentable over Squitieri and  
8 Trerotola; and finally rejecting claim 17 under § 103(a) as being  
9 unpatentable over Squitieri, Parks and Twardowski (US 5,509,897, issued  
10 Apr. 23, 1996).<sup>2</sup> An oral hearing was held on July 22, 2010. We have  
11 jurisdiction under 35 U.S.C. § 6(b).

12       We sustain the rejection of claim 17, which is illustrative of the  
13 claimed subject matter:

14           17. A method for performing hemodialysis on a  
15           patient comprising:  
16            a. surgically inserting an arteriovernous shunt  
17            into a patient, wherein said arteriovenous  
18            shunt comprises:  
19            i. an arterial graft comprising a body, a lead  
20            end and a terminal end, said lead end being  
21            configured for subcutaneous connection to  
22            an artery by anastomosis, wherein said  
23            arterial graft has a first diameter; and  
24

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<sup>2</sup>       The Examiner also has entered an objection to the drawing. Final Office Action mailed June 16, 2008 at 2. An objection to the drawings is subject to review by petition and is not appealable to the Board of Patent Appeals and Interferences. *See Ex Parte Frye*, 94 U.S.P.Q.2d 1072, 1077-78 (BPAI 2010).

- 1                   ii.        a single lumen venous outflow catheter  
2                   comprising an intake end and a depositing  
3                   end, said depositing end being configured  
4                   for insertion through a vein into the right  
5                   atrium of the heart, wherein said venous  
6                   outflow catheter has a second diameter  
7                   different from said first diameter; and
- 8                   iii.      a cylindrical cuff operable to direct passage  
9                   of blood from said arterial graft to said  
10                  venous outflow catheter, said cuff  
11                  comprising an inlet in blood communication  
12                  with an outlet:
  - 13                  1.        said inlet being disposed about and  
14                  connected to said terminal end of said  
15                  arterial graft; and
  - 16                  ii.        said outlet being disposed about and  
17                  connected to said intake end of said venous  
18                  outflow catheter; wherein said cuff provides  
19                  a secure fit for said arterial graft first  
20                  diameter and said venous outflow catheter  
21                  second diameter.
- 22                  b.        connecting said arterial graft to a  
23                  hemodialysis apparatus;
- 24                  c.        collecting blood from the patient through  
25                  said arterial graft;
- 26                  d.        passing said blood through the hemodialysis  
27                  apparatus;
- 28                  e.        collecting purified blood from hemodialysis  
29                  apparatus; and
- 30                  f.        transmitting said purified blood through said  
31                  cuff into said venous outflow catheter which  
32                  is located in the right atrium and the blood is  
33                  directly deposited into the right atrium.

1 OPINION  
2

3 *Rejection of Claim 17*

4 ISSUES

5 The Appellants argue the rejection of claim 17 separately from the  
6 rejections of the remaining claims. In view of the Examiner's findings and  
7 conclusions, and the Appellants' contentions, the following issues are raised  
8 in with regard to the rejection of claim 17:

- 9 • *First*, is Park analogous art? (*Compare* Br. 18 and 24 with Ans.  
10 10).
- 11 • *Second*, would one of ordinary skill in the art familiar with the  
12 combined teachings of Squitieri, Park and Twardowski have had  
13 reason to modify the hemodialysis and vascular system taught by  
14 Squitieri to include a single lumen venous outflow catheter  
15 comprising a depositing end configured for insertion through a  
16 vein into the right atrium of the heart? (*Compare* Br. 15 and 24  
17 with Ans. 7-8).
- 18 • *Third*, would one of ordinary skill in the art familiar with the  
19 combined teachings of Squitieri, Park and Twardowski have had  
20 reason to modify the method of using Squitieri's system to include  
21 a step of depositing blood directly into the right atrium of the  
22 heart? (*Id.*)
- 23 • *Fourth*, would the subject matter of claim 17 have been *prima facie*  
24 obvious even assuming for purposes of this appeal only that the  
25 combined teachings of Squitieri, Park and Twardowski would have  
26 provided one of ordinary skill in the art no reason to modify

1           Squitieri's system to include certain features of the Appellants'  
2           preferred embodiment related to the recited cylindrical cuff which  
3           were pointed out in the Appeal Brief but not recited in claim 17?  
4           *(Compare Br. 15-16, 18-19 and 24 with Ans. 9).*

5           • *Fifth*, does the probative value of the evidence supporting the  
6           Examiner's conclusion that the subject matter of claim 17 would  
7           have been obvious outweigh the probative value of the Appellants'  
8           objective evidence of nonobviousness? *(Compare Br. 25-27 with*  
9           Ans. 12).

10

#### FINDINGS OF FACT

11           The record supports the following additional findings of fact ("FF")  
12           by a preponderance of the evidence.

13           1. We adopt the Examiner's finding that:

14           Squitieri discloses an arteriovenous shunt system  
15           comprising an arterial graft 53 with a lead end 62  
16           anastomosed to an artery and [a] terminal end  
17           connected to needle access site 80, which acts as a  
18           connector that corresponds to applicant's cuff. . . .  
19           The access site 80, corresponding to applicant's  
20           cuff, directs passage of blood from the arterial  
21           catheter to the venous catheter, and is in  
22           communication with the terminal end of the  
23           arterial graft and the inlet end of the venous  
24           catheter (see FIGS 6-9, column 5, lines 19-60).

25

26           (Ans. 4).

27           2. Squitieri discloses that a preferred size for a graft serving the  
28           purpose of graft 53 would be approximately 7 mm in diameter and

1 transitioning downward to an open end portion of approximately 4 mm in  
2 diameter. (*See* Squitieri, col. 3, l. 67 – col. 4, l. 2).

3       3. We adopt the Examiner's finding that Squitieri's arteriovenous  
4 shunt system "further comprises a venous outflow catheter 65 with an  
5 outflow end that is capable of being inserted through a vein." (Ans. 4).

6       4. Squitieri describes tube 65 as including a plurality of  
7 perforations 66 at the outflow end of the tube and that the outlet end is  
8 positioned in the venous system 67. (Squitieri, col. 5, ll. 45-48). Figure 7 of  
9 Squitieri depicts the outflow end of the tube 65 positioned upstream of the  
10 heart near the position of the right atrium.

11       5. Squitieri teaches that positioning the outflow end of the tube 65  
12 in the venous system 67 avoids problems associated with anastomosing the  
13 outflow end to vein. (Squitieri, col. 2, ll. 27-32). Squitieri does not  
14 mention, much less criticize or disparage, placement of the outflow end in  
15 the right atrium of the heart.

16       6. Squitieri recognizes that excessive turbulence and shear forces  
17 in the vascular system are undesirable. (*See* Squitieri, col. 3, ll. 5-8).

18       7. We adopt the Examiner's finding that "Twardowski discloses  
19 an apparatus and method for hemodialysis in which a venous catheter  
20 comprises a distal end 138a disposed within the right atrium, delivering  
21 treated blood to the right atrium in order to provide a long-term indwelling  
22 catheter." (Ans. 7, citing Twardowski, col. 6, ll. 15-48; col. 11, ll. 15-35;  
23 and fig. 9).

24       8. Twardowski's indwelling catheter is a double-lumen catheter.  
25 (Twardowski, col. 6, ll. 15-16).

1        9. Twardowski teaches that “such catheters are preferably  
2 proportioned to be implanted in a major vein of the patient, with the distal  
3 tip of the catheter being positioned in the right atrium of the heart. This  
4 provides a high and turbulent blood flow to the catheter distal tip, as well as  
5 a bigger chamber, which minimizes the chances for the catheter distal tip to  
6 press against the wall thereof.” (Twardowski, col. 3, ll. 45-51).  
7 Twardowski also recognizes that reducing pressure and abrasion against  
8 blood vessel walls has the advantage of reduction in clotting and tissue  
9 irritation, thereby providing a catheter which is capable of long-term  
10 indwelling in the arteriovenous system of a patient. (Twardowski, col. 3, ll.  
11 17-21).

12        10. Twardowski teaches that the dimensions of the catheter may be  
13 chosen to match the vein in which the catheter is to be implanted.  
14 (Twardowski, col. 4, ll. 47-49).

15        11. Parks discloses an enteral feeding device including a ferrule.  
16 (Parks, col. 3, ll. 67-68).

17        12. Figure 13 of Parks discloses a cuff or ferrule 212 in which the  
18 transition 220 between a larger inner diameter at one end and a narrower  
19 inner diameter at the other end is longer and at a shallower angle than other  
20 examples depicted in Parks. The upper end of the ferrule 212 as depicted in  
21 Figure 13 includes conical walls 218, 220 which would enable a tubular  
22 conduit to be inserted (*see* Parks, col. 7, ll. 50-54) in such a manner as to  
23 provide a degree of continuity between the inner diameter of the tubular  
24 conduit and the diameter of the wall 220 near the inserted end of the conduit.

25        13. The Appellants in their Specification do not disclose any detail  
26 of the interior configuration of the preferred cuff 13 which connects their

1 preferred arteriovenous graft *11* to their preferred venous outflow catheter  
2 *12.* (*See, e.g.*, Spec. 9, para. 0026 and fig. 1).

3       14. The Appellants present an unexecuted declaration to which the  
4 results of two studies are attached. Each involved “HeRO” vascular access  
5 devices, which the Appellants’ unexecuted declaration identifies as  
6 hemodialysis arteriovenous shunts “identical to the applicants claimed  
7 invention.”

8       15. One study, reported by a Dr. H. Katzman, reached the  
9 conclusion that the bacteremia rate associated with the “HeRO” device  
10 surpassed bacteremia rates from IJ tunneled dialysis (TDC) and graft  
11 literature. The study also concluded that the patency rate associated with the  
12 “HeRO” device surpassed the patency rate from the TDC literature and was  
13 comparable to the patency rate from graft literature. (Exhibit 1 to  
14 declaration). The other study, reported by a Dr. Chris Stout and others,  
15 reported successful placement of the “HeRO” device in fifty of fifty-two  
16 patients to undergo placement attempts. (Exhibit 2 to declaration).

17       16. Neither study compares the subject matter of claim 17 to a  
18 system of the type described by Squitieri.

19       17. The only arguable evidence which the Appellants appear to  
20 provide to show that the results reported in the two studies were unexpected  
21 is a bare statement to that effect in the unexecuted declaration and arguments  
22 in the Appeal Brief.

23       18. Trerotola discloses a body implantable device in the form of a  
24 stent-graft extending between a brachial artery and an auxiliary vein.  
25 (Trerotola, col. 3, ll. 57-60 and col. 6, ll. 21-22). Trerotola also teaches the

1 use of polyurethane as a biostable flexible material. (Trerotola, col. 2, ll. 29-  
2 33).

3

#### 4 PRINCIPLES OF LAW

5 In determining whether the subject matter of a claim would have been  
6 obvious, an examiner must undertake the factual inquiries listed in *Graham*  
7 *v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). In order to justify rejecting a  
8 claim as unpatentable, the examiner must articulate some “reasoning with  
9 some rational underpinning to support the legal conclusion of obviousness.”  
10 *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir 2006). This reasoning must show  
11 that “there was an apparent reason to combine the known elements in the  
12 fashion claimed.” *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007).  
13 The apparent reason need not appear in, or be suggested by, one or more of  
14 the references on which the examiner relies. Instead, the examiner may  
15 employ common sense not inconsistent with the ordinary level of knowledge  
16 and skill in the art when analyzing the evidence. *Perfect Web Techs. v.*  
17 *InfoUSA, Inc.*, 587 F.3d 1324, 1328-29 (Fed. Cir. 2009).

18 In order to reject a claim under section 103(a), an examiner must  
19 establish at least a “prima facie” case that the claimed subject matter would  
20 have been obvious. Once the examiner produces prima facie evidence that  
21 the claimed subject matter would have been obvious, the applicant may  
22 present additional evidence tending to rebut the examiner’s conclusion that  
23 the claimed subject matter would have been obvious. If the applicant  
24 presents additional evidence to rebut the examiner’s conclusion, the  
25 examiner must consider all of the evidence anew. If the evidence presented  
26 by the examiner and any evidence presented by the applicant, considered

1 anew, demonstrate that the claimed subject matter would have been obvious  
2 to one of ordinary skill in the art, the claim is properly rejected under  
3 § 103(a). *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984).

4

## 5 ANALYSIS

6 Parks is analogous art. The established precedent of our reviewing  
7 court sets up a two-fold test for determining whether art is analogous:  
8 “First, we decide if the reference is within the field of the inventor’s  
9 endeavor. If it is not, we proceed to determine whether the reference is  
10 reasonably pertinent to the particular problem with which the inventor was  
11 involved.” *In re Deminski*, 796 F.2d 436, 442 (Fed. Cir. 1986). Claim 17  
12 expressly recites that the diameters of arterial graft and the venous outflow  
13 catheter differ. Therefore, one problem with which the Appellants were  
14 involved was the problem of connecting two tubes of different diameter.  
15 Parks is within the medical field, broadly speaking, and addresses this  
16 problem by means of Parks’ ferrule or connector 70. Since Parks is  
17 reasonably pertinent to a particular problem with which the inventor was  
18 involved, Parks is analogous art.

19 One of ordinary skill in the art would have had reason to modify the  
20 hemodialysis and vascular system taught by Squitieri to include a single  
21 lumen venous outflow catheter comprising a depositing end configured for  
22 insertion through a vein into the right atrium of the heart. Twardowski  
23 teaches providing a long-term indwelling catheter by disposing a distal end  
24 138a of the catheter within the right atrium and delivering treated blood to  
25 the right atrium. (FF 7). As the Examiner correctly concludes, it would  
26 have been obvious “to advance the catheter disclosed by the cited prior art

1 deeper into the patient's vasculature to the right atrium, as disclosed by  
2 Twardowski, in order to provide a long-term indwelling catheter without  
3 major drawbacks." (Ans. 7-8). More specifically, Squitieri recognizes that  
4 excessive turbulence and shear forces in the vascular system is undesirable.  
5 (FF 6). Twardowski teaches that extending a catheter conducting a  
6 hemodialysis outflow to the right atrium of the heart provides a bigger  
7 chamber in which to deposit turbulent, high shear outflow, "which  
8 minimizes the chances for the catheter distal tip to press against the wall  
9 thereof." (FF 9). One of ordinary skill in the art would have recognized that  
10 placing the outflow of Squitieri's single-lumen catheter in the right atrium  
11 would reduce the pressure and abrasion on the wall tissue near the outflow,  
12 thereby providing a long-term indwelling catheter. (*See id.*)

13 As the previous paragraph indicates, the teachings of Squitieri are not  
14 inconsistent with those of Twardowski. Squitieri teaches that positioning the  
15 outflow end of the venous outflow catheter 65 in the venous system 67  
16 avoids problems associated with anastomosing the outflow end to the vein.  
17 (FF 5). This advantage would not be undermined by extending the venous  
18 outflow catheter into the heart as taught by Twardowski. Although  
19 Twardowski describes a double-lumen catheter (FF 8) and Squitieri's tube  
20 65 appears to have only one lumen, this structural difference would not have  
21 dissuaded one of ordinary skill in the art from applying Twardowski's  
22 teachings concerning the advantages of depositing the outflow into the right  
23 atrium of the heart rather than into a vein. As the Examiner points out, the  
24 claimed subject matter may have been obvious from the teachings of the  
25 prior art even if the preferred embodiments described in the prior art cannot  
26 be physically combined. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

1        Claim 17 does not recite a cuff made of biocompatible material, a cuff  
2 which covers the venous outflow catheter only or a cuff which connects the  
3 outflow catheter to the arterial graft by surgical anastomosis. Assuming for  
4 purposes of this appeal only that the combined teachings of Squitieri, Park  
5 and Twardowski would have provided one of ordinary skill in the art no  
6 reason to modify Squitieri's system to include a cuff having these features,  
7 this assumption would not foreclose a conclusion that the subject matter of  
8 claim 17 would have been obvious.

9        The Appellants appear to contend that the combined teachings of  
10 Squitieri, Parks and Twardowski would have provided one of ordinary skill  
11 in the art no reason to connect an arterial graft and a venous outflow catheter  
12 of the types described by Squitieri (and as expanded in view of the teachings  
13 of Twardowski) by means of a cuff disposed about ends of the graft and  
14 catheter which "provides a secure fit for said arterial graft first diameter and  
15 said venous outflow catheter second diameter." Even assuming, as the  
16 Appellants argue, that particular embodiments of Parks' cuff or ferrule have  
17 ridged inner surfaces and would act as foreign bodies within the lumen of  
18 the arterial graft and the venous outflow catheter, leading to obstruction of  
19 the flow of blood and thrombosis (*see Br. 18-19*), these concerns would not  
20 have discouraged one of ordinary skill in the art from the combination  
21 proposed by the Examiner.

22       For example, Figure 13 of Parks discloses cuff or ferrule 212 in which  
23 the transition 220 between a larger inner diameter at one end and a narrower  
24 inner diameter at the other end is longer and at a shallower angle than other  
25 examples depicted in Parks. The upper end of the ferrule 212 as depicted in  
26 Figure 13 includes conical walls 218, 220 which would enable a tubular

1 conduit to be inserted in such a manner as to provide a degree of continuity  
2 between the inner diameter of the tubular conduit and the diameter of the  
3 wall 220 near the inserted end of the conduit. (FF 12). Assuming, as the  
4 Appellants appear to assert, that one of ordinary skill in the art would  
5 recognize that a ridged inner surface would disrupt laminar blood flow,  
6 Figure 13 of Parks would have provided guidance to one of ordinary skill in  
7 the art as to how to reduce the disruption of laminar blood flow through the  
8 cuff or ferrule. The Appellants' assertion that the ridged inner surfaces of  
9 some embodiments of Parks' ferrules would have discouraged those of  
10 ordinary skill in the art from combining elements from Squitieri, Parks and  
11 Twardowski in the fashion claimed in claim 17 is not persuasive.

12 The Appellant's assertion is particularly unconvincing in view of their  
13 failure to disclose in their Specification any details of the interior of their  
14 preferred cuff 13. (*See* FF 13). The absence of such disclosure implies that  
15 the Appellants believed as of their filing date that one of ordinary skill in the  
16 art seeking to practice the subject matter of claim 17 had sufficient skill to  
17 design or procure a cuff capable of connecting an arteriovenous graft to a  
18 venous outflow catheter of different diameter without disrupting laminar  
19 blood between the two. Since it was within the level of ordinary skill to  
20 design or procure such a cuff, a need to do so would not have discouraged  
21 one of ordinary skill in the art from modifying Squitieri's system in the  
22 fashion claimed in claim 17.

23 For these reasons, we conclude that the subject matter of claim 17  
24 would have been *prima facie* obvious from the combined teachings of  
25 Squitieri, Parks and Twardowski. Since the Appellants have submitted  
26 evidence in rebuttal of obviousness, we now turn to consider this evidence.

1 When such evidence is presented it is our duty to consider the evidence  
2 anew. *See, e.g., In re Eli Lilly & Co.*, 902 F.2d 943, 945 (Fed. Cir. 1990).  
3 We also are mindful that objective evidence of nonobviousness in any given  
4 case may be entitled to more or less weight depending on its nature and its  
5 relationship with the merits of the invention. *Stratoflex Inc. v. Aeroquip*  
6 *Corp.*, 713 F.2d 1530, 1539 (Fed. Cir. 1983).

7 The probative value of the Appellants' objective evidence is low. As  
8 the Examiner points out, the Appellants provide no evidence of an actual  
9 long felt need in the art and rely on nothing more than unsupported argument  
10 as evidence of commercial success. (*See Ans. 12; see also Br. 26 and 27*).  
11 The Appellants' evidence of unexpected result is less insubstantial. (*See FF*  
12 *15*).

13 Nevertheless, two factors to be considered in determining the weight  
14 to be given evidence of unexpected results is the degree to which the  
15 evidence compares results of the claimed subject matter against those of the  
16 closest prior art and the degree to which the evidence shows that the results  
17 are unexpected. *See Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1370-71  
18 (Fed. Cir. 2007). The Appellants' evidence fails to compare the claimed  
19 subject matter against the closest prior art, Squitieri. Neither do the  
20 Appellants provide evidence or reasoning to support their assertion that the  
21 bacteremial and patency results identified in the evidence would have been  
22 unexpected. (FF 16 and 17). Having considered the evidence presented by  
23 the Appellants and weighed all of the evidence anew, the weight of the  
24 evidence supports the Examiner's legal conclusion that the subject matter of  
25 claim 17 would have been obvious.

26

## CONCLUSIONS

Park is analogous art.

3 One of ordinary skill in the art familiar with the combined teachings  
4 of Squitieri, Park and Twardowski would have had reason to modify the  
5 hemodialysis and vascular system taught by Squitieri to include a single  
6 lumen venous outflow catheter comprising a depositing end configured for  
7 insertion through a vein into the right atrium of the heart.

8 One of ordinary skill in the art familiar with the combined teachings  
9 of Squitieri, Park and Twardowski would have had reason to modify the  
10 method of using Squitieri's system to include a step of depositing blood  
11 directly into the right atrium of the heart.

12 The subject matter of claim 17 would have been prima facie obvious  
13 even assuming for purposes of this appeal only that the combined teachings  
14 of Squitieri, Park and Twardowski would have provided one of ordinary  
15 skill in the art no reason to modify Squitieri's system to include certain  
16 features of the Appellants' preferred embodiment related to the recited  
17 cylindrical cuff which were pointed out in the Appeal Brief but not recited in  
18 claim 17.

19 The probative value of the evidence supporting the Examiner's  
20 conclusion that the subject matter of claim 17 would have been obvious  
21 outweighs the probative value of the Appellants' objective evidence of  
22 nonobviousness.

23 We sustain the rejection of claim 17 under § 103(a) as being  
24 unpatentable over Squitieri, Parks and Twardowski.

1     *Remaining Claim Rejections*

2                 Claims 1 and 13 are independent. Claim 1 recites an arteriovenous  
3     shunt including a single lumen venous outflow catheter. Claim 13 recites a  
4     system including an arteriovenous shunt with a single lumen venous outflow  
5     catheter. In both claim 1 and claim 13, the single lumen venous outflow  
6     catheter comprises an intake end and a depositing end. The depositing end  
7     is configured for insertion through a vein into the right atrium of the heart.

8                 Without the teachings of Twardowski, the Examiner has identified  
9     nothing in the combined teachings of Squitieri and Parks which might have  
10    suggested to one of ordinary skill in the art to extend an outlet end of an  
11    outlet tube such as Squitieri's tube 65 to reach into the right atrium of the  
12    heart. (*See, e.g.*, Ans. 5 and 8-9). Neither has the Examiner articulated any  
13    reason why one of ordinary skill in the art familiar with the teachings of  
14    Squitieri and Parks might have modified Squitieri's system so that an outlet  
15    end of an outlet tube extended into the right atrium. The Examiner's finding  
16    that Squitieri teaches the outlet tube 65 might be of various sizes does not  
17    imply in and of itself a reason why one of ordinary skill in the art might have  
18    extended the tube to reach into the right atrium. We do not sustain the  
19    Examiner's rejection of claims 1-5, 7-10, 12-14, 17 and 18 under § 103(a) as  
20    being unpatentable over Squitieri and Parks.

21                 Neither does the Examiner articulate reasoning adequate to explain  
22    how the teachings of Trerotola remedies the deficiencies in the teachings of  
23    Squitieri for purposes of the rejection of claim 10 or the deficiencies in the  
24    combined teachings of Squitieri and Parks for purposes of the rejections of  
25    claims 6, 11, 15, 16, 19 and 20. We do not sustain the rejections of claims 6,  
26    11, 15, 16, 19 and 20 under § 103(a) as being unpatentable over Squitieri,

1 Parks and Trerotola or the rejection of claim 10 under § 103(a) as being  
2 unpatentable over Squitieri and Trerotola.

3

4 DECISION

5 We AFFIRM the Examiner's decision rejecting claim 17.

6 We REVERSE the Examiner's decision rejecting claims 1-16 and 18-  
7 20.

8 No time period for taking any subsequent action in connection with  
9 this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R.  
10 § 1.136(a)(1)(iv) (2007).

11

12 AFFIRMED-IN-PART

13

14

15 Klh

16

17

18

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